

**Judges' Retirement System II**  
**Actuarial Valuation**  
**as of**  
**June 30, 2010**

**Recommended Contributions**  
**for Fiscal Year**  
**July 1, 2011 – June 30, 2012**

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## Actuarial Certification

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**Certification** To the best of our knowledge, this report is complete and accurate and contains sufficient information to fully and fairly disclose the actuarial funded condition of the Judges' Retirement System II as of June 30, 2010. Based on the employee data provided by the Judges' Retirement System administrative staff at CalPERS, the statement of assets provided by the CalPERS Fiscal Services Division, and the benefits as outlined in Appendix B, it is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles and that the assumptions and methods are reasonable for this plan.



FRITZIE ARCHULETA, ASA, MAAA  
Senior Pension Actuary



ALAN MILLIGAN, MAAA, FCA, FSA, FCIA  
Chief Actuary

# Highlights and Executive Summary

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**Purpose of the Report**

This actuarial valuation of the Judges' Retirement System II of the State of California was performed by CalPERS staff actuaries as of June 30, 2010 in order to:

- set forth the actuarial assets and funding liabilities of this plan as of June 30, 2010;
- establish the actuarially determined recommended contribution rate for this plan for the fiscal year July 1, 2011 through June 30, 2012;
- provide actuarial information as of June 30, 2010, to the CalPERS Board of Administration and other interested parties, and
- provide pension information as of June 30, 2010 under Governmental Accounting Standards Board (GASB) Statement Number 27.

The use of this report for other purposes may be inappropriate.

**Development  
of the  
Employer  
Contribution  
Rate**

This is the sixteenth annual actuarial valuation of the Judges' Retirement System II. This system began on November 9, 1994 to provide retirement and ancillary benefits to judges elected or appointed on or after that date. The employer contribution rate from the inception of the plan until June 30, 1996 was set by State statute. Subsequently, the employer contribution rate was determined through an actuarial valuation process. This actuarial valuation sets forth the employer contribution rate for the plan for the fiscal year July 1, 2011 through June 30, 2012.

The following table illustrates total recommended employer contribution over the course of 2011-2012. The amount of money is illustrated in dollars and then is shown as a percentage of the projected payroll that is expected over the course of the year.

	<b>Fiscal Year 2010/2011</b>	<b>Fiscal Year 2011/2012</b>
Employer Contribution (in Dollars)		
Payment for Normal Cost	\$ 45,864,751	\$ 49,148,662
Payment on Amortization Bases	5,084,373	3,995,474
Total Employer Contribution	\$ 50,949,124	\$ 53,144,136
Projected Annual Payroll for Contribution Year	\$ 211,924,734	\$ 226,710,927
Employer Contribution (Percentage of Projected Payroll)		
Payment for Normal Cost	21.642%	21.679%
Payment on Amortization Bases	2.399%	1.762%
Total Employer Contribution	24.041%	23.441%
Employee Contribution (Percentage)	8.000%	8.000%

**Funded Status of the Plan**    The tables below summarize the funded status of the Judges' Retirement System II as of June 30.

	<b>June 30, 2009</b>	<b>June 30, 2010</b>
Present Value of Projected Benefits	\$ 972,235,626	\$ 1,060,742,176
Entry Age Normal Accrued Liability	450,547,115	520,687,470
Actuarial Value of Assets (AVA)*	378,691,893	461,071,403
Unfunded Liability	\$ <u>71,855,222</u>	\$ <u>59,616,067</u>
Market Value of Assets (MVA)	\$ 315,576,578	\$ 422,100,782
Funded Status (on an MVA basis)	70.0%	81.1%

\*The Actuarial Value of Assets is used to establish funding requirements, while the funded ratio based on the Market Value of Assets is a better indicator of the solvency of the plan.

**Changes Since  
Prior  
Valuation**

**Actuarial Assumptions**

Due to the election of a new asset allocation, the Gross Investment Return was lowered from 7.75% to 7.50%.

In addition, the Judges Retirement Fund II has been rapidly growing. The Administrative Expenses for the plan have remained relatively constant from year to year. As a result, we have lowered the Administrative Expenses assumption from 0.50% to 0.25%.

The resulting Net Investment return remains unchanged from last year's valuation.

**Actuarial Methods**

No changes were made since the prior valuation.

**Plan provisions**

No changes were made since the prior valuation.



# Summary of Liabilities And Recommended Employer Contribution

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## **Summary of Liabilities and Recommended Employer Contribution**

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### **Comparison of Current and Prior Year Results**

The table on the following page is a comparison of key valuation results for the current valuation date to the corresponding values from the prior valuation date.

## Comparison of Current and Prior Year Results

<b>Results</b>	<b>June 30, 2009</b>	<b>June 30, 2010</b>
Members Included in the Valuation		
Active Members	1,109	1,186
Vested Terminated Members	2	1
Receiving Benefits	16	19
Total	<u>1,127</u>	<u>1,206</u>
Annual Covered Payroll	\$ 198,793,201	\$ 212,663,194
Projected Annual Payroll for Contribution Year	\$ 211,924,734	\$ 226,710,927
Average Annual Pay	\$ 179,254	\$ 179,311
Average Attained Age for Actives	55.45	56.02
Average Entry Age for Actives	48.98	49.07
Present Value of Benefits		
Active Members	\$ 959,044,327	\$ 1,046,312,562
Vested Terminated Members	744,576	208,632
Receiving Benefits	12,446,723	14,220,983
Total	<u>\$ 972,235,626</u>	<u>\$ 1,060,742,176</u>
Accrued Liability		
Active Members	\$ 437,355,816	\$ 506,257,856
Vested Terminated Members	744,576	208,632
Receiving Benefits	12,446,723	14,220,983
Total	<u>\$ 450,547,115</u>	<u>\$ 520,687,470</u>
Present Value of Future Employee Contributions		\$ 150,446,427
Present Value of Future Employer Normal Cost		\$ 389,588,279
Actuarial Value of Assets	\$ 378,691,893	\$ 461,071,403
Unfunded Liability/(Excess Assets)	\$ 71,855,222	\$ 59,616,067
Employer Contribution Required (in Projected Dollars)		
Payment for Normal Cost	\$ 45,864,751	\$ 49,148,662
Payment on Amortization Bases	5,084,373	3,995,474
Total	<u>\$ 50,949,124</u>	<u>\$ 53,144,136</u>
Employer Contribution Required (Percent of Projected Payroll)		
Payment for Normal Cost	21.642%	21.679%
Payment on Amortization Bases	2.399%	1.762%
Total	<u>24.041%</u>	<u>23.441%</u>

**Gain/Loss Analysis**      Shown below is an analysis of the (Gain)/Loss for the fiscal year ending on the valuation date. The Gain or Loss is shown separately for assets, contributions, and liabilities.

**A. Total (Gain)/Loss for the Year**

1. Unfunded Accrued Liability (UAL) as of 6/30/09	\$ 71,855,222
2. Expected Payment on UAL during 2009/2010	(2,635,461)
3. Interest through 6/30/10 $[0.0725 \times A1 - (1.0725^{1/2} - 1) \times A2]$	<u>5,303,368</u>
4. Expected UAL before all other changes $[A1 - A2 + A3]$	\$ 79,794,051
5. Change due to new assumptions	0
6. Change due to revised actuarial methods	<u>0</u>
7. Expected UAL after all changes $[A4 + A5 + A6]$	79,794,051
8. Actual Unfunded Accrued Liability as of 6/30/10	<u>59,616,067</u>
9. Total (Gain)/Loss for 2009/2010 $[A8 - A7]$	\$ (20,177,984)

**B. Contribution (Gain)/Loss for the Year**

1. Expected Contribution (Employer and Employee)	\$ 58,205,924
2. Interest on Expected Contributions $[(1.0725^{1/2} - 1) \times B1]$	2,073,048
3. Actual Contribution	60,159,048
4. Interest on Actual Contributions $[(1.0725^{1/2} - 1) \times B3]$	<u>2,142,610</u>
5. Contribution (Gain)/Loss $[(B1 + B2) - (B3 + B4)]$	\$ (2,022,686)

**C. Asset (Gain)/Loss for the Year**

1. Actuarial Value of Assets as of 6/30/09	\$ 378,691,893
2. Contributions Received	60,159,048
3. Benefits, Refunds Paid and Administrative Costs	(4,435,713)
4. Expected Interest $[0.0725 \times C1 + ((1.0725^{1/2} - 1) \times (C2 + C3))]$	29,439,791
5. Expected Assets at 6/30/10 $[C1 + C2 + C3 + C4]$	\$ 463,855,019
6. Actual Actuarial Value of Assets as of 6/30/10	<u>461,071,403</u>
7. Asset (Gain)/Loss $[C5 - C6]$	\$ 2,783,616

**D. Liability (Gain)/Loss for the Year**

1. Total (Gain)/Loss (A9)	\$ (20,177,894)
2. Contribution (Gain)/Loss (B5)	(2,022,686)
3. Asset (Gain)/Loss (C7)	<u>2,783,616</u>
4. Liability (Gain)/Loss $[D1 - D2 - D3]$	\$ (20,938,914)*

\*The majority of the liability gain is attributed to salary experience in 2009-2010.

**Schedule of  
Amortization  
Bases**

The schedule below shows the development of the proposed payment on the Amortization Bases. The rate smoothing method requires that gains and losses be combined into a single base and amortized over 30 years. Please refer to Appendix A for an explanation of how amortization periods are determined.

<b>Reason For Base</b>	<b>Date Established</b>	<b>Remaining Period</b>	<b>Balance on 6/30/10</b>	<b>Expected Payment on UAL 10-11</b>	<b>Amount Remaining on 6/30/11</b>	<b>Scheduled Payment Fiscal Year 2011-2012</b>
Fresh Start	6/30/07	27	30,744,470	1,812,907	31,095,969	1,871,827
Assumption Change	6/30/09	19	21,935,951	1,591,339	21,878,291	1,643,058
Method Change	6/30/09	19	8,921,861	647,235	8,898,409	668,270
(Gain)/Loss	6/30/09	30	18,191,768	1,032,891	18,440,992	1,047,042
(Gain)/Loss	6/30/10	30	(20,177,983)	101,984	(21,746,502)	(1,234,723)
Total			59,616,067	5,186,356	58,567,159	3,995,474

**Reconciliation  
of Employer  
Contribution  
Rates**

This table illustrates how the contribution rate is calculated and, more importantly, why the Employer Contribution Rate differs this year from the previous year.

	<b>Percentage of Projected Payroll</b>	<b>Estimated \$ Based on Projected Payroll</b>
1. 2010-2011 Employer Rate (from prior year annual report)	24.041%	\$ 50,949,124
2. Effect of changes since the prior annual valuation		
a) Effect of change in payroll	-	3,554,748
b) Effect of change in actuarial assumptions	-	-
c) Effect of new actuarial methods	-	-
d) Effect of unexpected changes in demographics	<u>-0.600%</u>	<u>(1,359,736)</u>
e) Net effect of the changes above [Sum of a through d]	-0.600%	2,195,012
3. 2011-2012 Estimated Employer Contribution	23.441%	\$ 53,144,136

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**Employer Contribution Rate History**      This table provides the employer contribution rates for the Judges' Retirement System II from its inception to the rate established by this valuation.

Fiscal Year	Contribution Rate	Fiscal Year	Contribution Rate
1995-96	18.800%	2004-05	20.252%
1996-97	19.170%	2005-06	19.848%
1997-98	21.920%	2006-07	19.917%
1998-99	21.540%	2007-08	19.916%
1999-00	18.567%	2008-09	20.227%
2000-01	18.130%	2009-10	20.358%
2001-02	18.508%	2010-11	24.041%
2002-03	19.231%	2011-12	23.441%
2003-04	19.217%		

**Funding  
History**

Shown below is the history of funding progress for the plan.

<b>Valuation Date</b>	<b>Entry Age Normal Accrued Liability</b>	<b>Actuarial Value Of Assets (AVA)</b>	<b>Funded Ratio (AVA)</b>	<b>Market Value of Assets (MVA)</b>	<b>Funded Ratio (MVA)</b>	<b>Projected Annual Covered Payroll</b>
6/30/95	\$ 70,657	\$ 239,474	338.9%	\$ 239,474	338.9%	\$ 3,944,181
6/30/96	2,812,567	2,387,870	84.9%	2,387,870	84.9%	11,762,307
6/30/97	7,906,056	7,242,314	91.6%	7,242,314	91.6%	21,220,469
6/30/98	15,043,465	15,120,408	100.5%	16,256,101	108.1%	32,960,219
6/30/99	26,921,274	27,154,854	100.9%	28,372,726	105.4%	41,448,759
6/30/00	41,619,162	40,503,417	97.3%	41,354,371	99.4%	48,450,504
6/30/01	60,933,072	55,954,506	91.8%	51,981,931	85.3%	69,937,653
6/30/02	76,459,252	71,928,890	94.1%	65,389,900	85.5%	80,237,849
6/30/03	105,116,289	96,107,358	91.4%	90,713,575	86.3%	95,612,128
6/30/04	137,703,630	129,152,543	93.8%	129,315,504	93.9%	108,842,477
6/30/05	177,760,708	167,556,473	94.3%	171,875,047	96.7%	122,280,588
6/30/06	220,134,685	212,903,528	96.7%	218,986,736	99.5%	136,602,126
6/30/07	294,982,560	267,604,460	90.7%	290,733,043	98.6%	174,473,271
6/30/08	366,513,989	334,903,486	91.4%	325,451,000	88.8%	190,413,674
6/30/09*	450,547,115	378,691,893	84.1%	315,576,578	70.0%	211,942,734
6/30/10	520,687,470	461,071,403	88.6%	422,100,782	81.1%	226,710,927

\*New funding method used since 6/30/09 valuation. Please refer to Appendix A for an explanation of funding method.

## Summary of Assets

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**Reconciliation  
of the Market  
Value of  
Assets**

The following displays the change in the Market Value of Assets from the prior valuation to the current valuation by type of transaction.

1.	Beginning Balance as of 6/30/2009	\$ 315,576,578
2.	Member Contributions	17,569,692
3.	Employer Contributions	42,589,356
4.	Benefit Payments	(1,391,528)
5.	Refunds	(2,591,675)
6.	Administration Costs	(452,510)
7.	Investment Earnings	50,800,869
8.	Ending Balance as of 6/30/2010	<u>\$ 422,100,782</u>

**Development  
of the  
Actuarial  
Value of  
Assets**

The development of the Actuarial Value of Assets for the current valuation date is shown below. This is the amount of asset used in the determination of the contribution rate.

1.	Actuarial Value of Assets as of 6/30/2009	\$ 378,691,893
2.	Member Contributions	17,569,692
3.	Employer Contributions	42,589,356
4.	Benefit Payments	(1,391,528)
5.	Refunds	(2,591,675)
6.	Administration Costs	(452,510)
7.	Expected Investment Return	29,439,791
8.	Expected Actuarial Value of Assets	463,855,019
9.	Market Value of Assets as of 6/30/2010	422,100,782
10.	One-Fifteenth of the Difference Between Market Value of Assets and Expected Actuarial Value of Assets [(9) – (8)] x 1/15	(2,783,616)
11.	Preliminary Actuarial Value of Assets [(8) + (10)]	461,071,403
12.	Preliminary Actuarial Value to Market Value Ratio [(11) / (9)]	109.23%
13.	Final Actuarial Value to Market Value Ratio (Minimum 80%, Maximum 120%)	109.23%
14.	Final Actuarial Value of Assets as of 6/30/2010	\$ 461,071,403

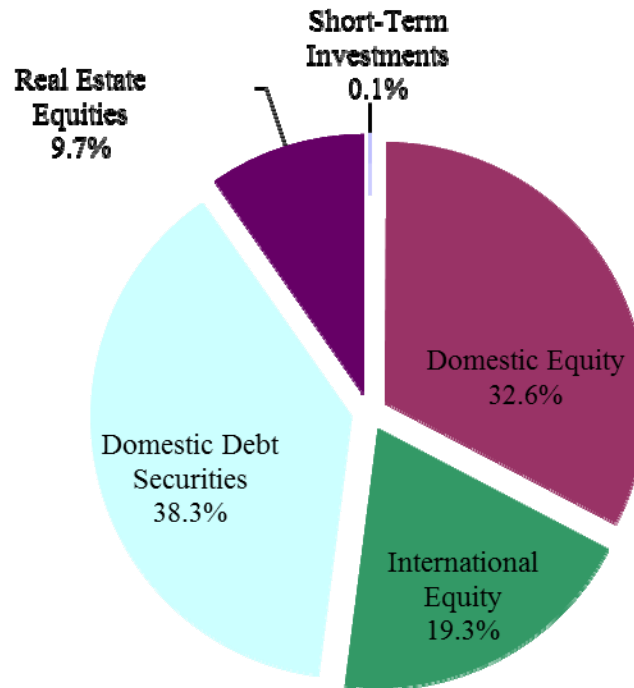
**Asset  
Allocation**

Shown below is the Market Value of Assets, by asset type, as of the valuation date.

<b>Cash</b>	\$	8,299
<b>Investments at Market Value</b>		
Surplus Money Investment Fund		339,000
Short-term Investment Fund		820
Domestic Equity		134,058,524
Domestic Debt Securities		157,398,354
International Equity		79,527,389
Real Estate Equities		39,879,362
Subtotal of Investments	\$	411,203,449
<b>Accounts Receivable</b>		
Due from Other Funds		40,328
Interest Accrued on Investments		9,331
Member and Employer Contributions		11,778,798
Subtotal of Accounts Receivable	\$	11,828,457
<b>Accounts Payable</b>		(939,424)
<b>Fund Balance at Market Value on 6/30/2010</b>	\$	422,100,782

**Asset  
Allocation  
Chart**

This is the graphical representation of how the money contained in the Judges' Retirement II Fund is allocated for investment.



Receivables and payables are not included.

## Summary of Participant Data

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**Reconciliation  
of Participants**

The table below illustrates a reconciliation of the participant data over the course of the valuation year. It identifies numerically who entered the plan, who left the plan and who remained in the plan in the same status as on the previous valuation date or who moved to a new status over the course of the year.

**Reconciliation of Participants  
For the Fiscal Year Ending June 30, 2010**

	Actives	Inactive	Retirees and Beneficiaries	Total
<b>As of June 30, 2009</b>	1,109	2	16	1,127
1. New Entrants	84	0	0	84
2. Non-Vested Terminations				
• Refund Paid	0	0	0	0
• Refund Pending	0	0	0	0
3. Vested Terminations				
• Monetary Credit Paid	(3)	(1)	0	(4)
• Monetary Credit Pending	0	0	0	0
4. Disabilities	0	0	0	0
5. Retirements	(2)	0	2	0
6. Death with Beneficiary	(1)	0	1	0
7. Active Death Benefit	(1)	0	0	(1)
8. Benefits Ceasing (Beneficiaries)	0	0	0	0
<b>As of June 30, 2010</b>	<b>1,186</b>	<b>1</b>	<b>19</b>	<b>1,206</b>

***Judges' Retirement System II***  
***Actuarial Valuation – June 30, 2010***

**Distribution  
of Active  
Members**

The following table displays the number of active participants by age and service as of June 30, 2010.

<b>Attained Age</b>	<b>Years of Service at Valuation Date</b>					<b>Total</b>
	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20+</b>	
15-34	5	0	0	0	0	0
35-39	66	3	0	0	0	5
40-44	105	54	10	0	0	69
45-49	112	83	45	6	0	169
50-54	115	117	83	5	0	246
55-59	63	90	68	7	0	320
60-64	13	48	77	10	1	228
65+	5	0	0	0	0	149
<b>All Ages</b>	479	395	283	28	1	1186

**Distribution  
of Average  
Annual  
Salaries**

The following table displays the average salaries of active participants by age and service as of June 30, 2010.

<b>Attained Age</b>	<b>Years of Service at Valuation Date</b>					<b>Average</b>
	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20+</b>	
15-34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35-39	\$ 178,789	\$ -	\$ -	\$ -	\$ -	\$ 178,789
40-44	\$ 178,789	\$ 178,789	\$ -	\$ -	\$ -	\$ 178,789
45-49	\$ 178,789	\$ 178,789	\$ 178,789	\$ -	\$ -	\$ 178,789
50-54	\$ 179,019	\$ 179,100	\$ 178,789	\$ 183,091	\$ -	\$ 179,104
55-59	\$ 179,238	\$ 179,010	\$ 179,722	\$ 178,789	\$ -	\$ 179,273
60-64	\$ 179,199	\$ 178,789	\$ 181,825	\$ 182,476	\$ -	\$ 179,921
65+	\$ 178,789	\$ 179,327	\$ 179,795	\$ 181,370	\$ 178,789	\$ 179,655
<b>Average</b>	\$ 178,005	\$ 178,985	\$ 180,066	\$ 181,554	\$ 178,789	\$ 179,311

**Distribution of  
Retired  
Members and  
Beneficiaries**

The following table displays the number of recipients by age and retirement type.  
as of June 30, 2010.

<b>Attained Age</b>	<b>Service Retirement</b>	<b>Non- Industrial Disability</b>	<b>Industrial Disability</b>	<b>Total</b>
50-54	0	1	0	1
55-59	1	0	0	1
60-64	1	1	0	2
65-69	1	2	0	3
70-74	4	3	0	7
75-79	3	0	0	3
80-84	1	0	0	1
85 and Over	0	0	0	0
<b>All Ages</b>	11	7	0	18*

\*Does not include beneficiary receiving 36 month pre-retirement death benefit



# Appendices

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## **Appendix A – Actuarial Data, Methods and Assumptions**

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### **Actuarial Data**

As stated in the Actuarial Certification, the data which serves as the basis of this valuation has been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate.

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### **Actuarial Funding Method**

The actuarial funding method used for the Retirement Program is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percent of pay in each year from the age of hire (entry age) to the assumed retirement age. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

The excess of the total actuarial accrued liability over the actuarial value of plan assets is called the unfunded actuarial accrued liability. Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability as a level percentage of assumed future payrolls. All changes in liability due to plan amendments, changes in actuarial assumptions, or changes in actuarial methodology are amortized separately over a 20-year period. In addition, all gains or losses are tracked and amortized over a rolling 30 year period. Finally, if a plan's accrued liability exceeds the actuarial value of assets, the annual contribution with respect to the total unfunded liability may not be less than the amount produced by a 30-year amortization of the unfunded liability.

An exception to the funding rules above is used whenever the application of such rules results in inconsistencies. In these cases a "fresh start" approach is used. This simply means that the current unfunded actuarial liability is projected and amortized over a set number of years. As mentioned above, if the annual contribution on the total unfunded liability was less than the amount produced by a 30-year amortization of the unfunded liability, the plan actuary would implement a 30-year fresh start. However, in the case of a 30-year fresh start, just the unfunded liability not already in the (gain)/loss base (which already is amortized over 30 years) will go into the new fresh start base. In addition, a fresh start is needed in the following situations:

- when a positive payment would be required on a negative unfunded

actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability); or

- when there are excess assets, rather than an unfunded liability. In this situation a 30-year fresh start is used, unless a longer fresh start is needed to avoid a negative total rate.

It should be noted that the actuary may choose to use a fresh start under other circumstances. In all cases, the fresh start period is set by the actuary at what he deems appropriate, and will not be less than five years nor greater than 30 years.

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**Asset  
Valuation  
Method**

In order to dampen the effect of short term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. First an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus one-fifteenth of the difference between the actual Market Value of Assets and the Expected Value of Assets as of the valuation date. However in no case will the Actuarial Value of Assets be less than 80% or greater than 120% of the actual Market Value of Assets.

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**Actuarial  
Assumptions**

The actuarial assumptions used in the valuation are shown below. These assumptions are based upon recommendations from both CalPERS actuarial staff and outside consulting actuaries.

**Economic  
Assumptions**

The following table identifies the economic assumptions used in the valuation.

<b>June 30, 2010</b>	
Gross Investment Return:	7.50%
Less Administrative Expense:	0.25%
Net Investment Return, compounded annually:	7.25%
Individual Salary Increases, compounded annually:	3.25%
Overall Payroll Growth, compounded annually*	3.25%
Inflation:	3.00%

\*The Overall Payroll Growth assumption is used in projecting the payroll over which the unfunded liability is amortized.

**Demographic Assumptions**

**Service  
Retirement**

The table below illustrates the assumptions used in the valuation to determine the probability of a judge retiring out of the system.

<b>Service Greater than 20 years</b>	
<b>Age</b>	<b>Rate</b>
Below 65	0.000
65	0.750
66	0.400
67	0.300
68	0.350
69	0.500
70*	1.000

\* For Judges age 70 and older with 5 or more years of service the probability of retirement is 100%.

**Withdrawal** Rates vary by age and years of service as shown in the table below.

<b>Entry Age</b>	<b>Years of Service</b>					
	<b>0-1</b>	<b>1-2</b>	<b>2-3</b>	<b>3-4</b>	<b>4-5</b>	<b>5 or more</b>
<b>35</b>	0.00525	0.00525	0.00525	0.00525	0.00525	0.00225
<b>40</b>	0.00450	0.00450	0.00450	0.00450	0.00450	0.00375
<b>45</b>	0.00375	0.00375	0.00375	0.00375	0.00375	0.00750
<b>50</b>	0.00375	0.00375	0.00375	0.00375	0.00375	0.00900
<b>55</b>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00825
<b>60</b>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00750

**Pre-Retirement  
Non-Industrial  
Mortality and  
Disability** Rates vary by age as shown in the table below.

<b>Attained Age</b>	<b>Pre-Retirement Mortality</b>		<b>Non-Industrial Disability</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
35	0.00067	0.00046	0.00000	0.00000
40	0.00087	0.00065	0.00100	0.00100
45	0.00120	0.00093	0.00190	0.00190
50	0.00176	0.00126	0.00320	0.00320
55	0.00260	0.00176	0.00540	0.00540
60	0.00395	0.00266	0.00850	0.00850
65	0.00608	0.00419	0.01220	0.01220
70	0.00914	0.00649	0.00000	0.00000

**Post  
Retirement  
Mortality**

The 1994 Group Annuity Mortality Table, for males and females.

<b>Attained Age</b>	<b>Standard</b>		<b>Non-Industrial Disability</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
35	0.00075	0.00043	0.00984	0.00548
40	0.00093	0.00062	0.01666	0.00674
45	0.00133	0.00085	0.01646	0.00985
50	0.00239	0.00125	0.01632	0.01245
55	0.00474	0.00243	0.01936	0.01580
60	0.00720	0.00431	0.02293	0.01628
65	0.01069	0.00775	0.03174	0.01969
70	0.01675	0.01244	0.03870	0.03019
75	0.03080	0.02071	0.06001	0.03915
80	0.05270	0.03749	0.08388	0.05555
85	0.09775	0.07005	0.14035	0.09577
90	0.16747	0.12404	0.21554	0.14949
95	0.25659	0.21556	0.31025	0.23055
100	0.34551	0.31876	0.45905	0.37662
105	0.58527	0.56093	0.67923	0.61523
110	1.00000	1.00000	1.00000	1.00000

**Industrial  
Mortality**

Rates are zero.

**Industrial  
Disability**

Rates are zero.

**Marital Status**

Probability of being married at service retirement or disability retirement is 90%.

**Age of Spouse**

Assumes the female spouses are three years younger than male spouses

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**Monetary  
Credit Plan  
Assumptions**

The actuarial assumptions used to convert the balance in the Monetary Credit Plan to an annuity value are those used in the valuation of this plan and are stated above.

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**Internal  
Revenue Code  
Section 415**

The limitations on benefits imposed by Internal Revenue Code Section 415 were not taken into account in this valuation. The effect of these limitations has been deemed immaterial on the overall results of this valuation.

**Previous Assumptions and Methods**

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**Previous Gross  
Investment  
Return**

Due to the election of a new asset allocation, the Gross Investment Return was lowered from 7.75% to 7.50%.

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**Previous  
Administrative  
Expenses**

The Judges Retirement Fund II has been rapidly growing. The Administrative Expenses for the plan have remained relatively constant from year to year. As a result, we have lowered the Administrative Expenses assumption from 0.50% to 0.25%.

## **Appendix B – Summary of Principal Plan Provisions**

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<b>Background</b>	Judges' Retirement System II (JRS II) was established in 1994 to create a fully funded, actuarially-sound retirement system for judges appointed or elected on or after November 9, 1994. This system provides a unique combination of two basic types of retirement allowances: a defined benefit plan and a monetary credit plan. The defined benefit plan provides a lifetime monthly retirement allowance of up to 75 percent of final compensation. The monetary credit plan allows for a refund of member contributions, employer contributions (see below) and interest at retirement.
<b>Membership</b>	The JRS II provides retirement, death, withdrawal and disability benefits for Supreme and Appellate Court Justices, Superior Court Judges, and Municipal Court Judges who are appointed or elected on or after November 9, 1994, and their beneficiaries.
<b>Member Contributions</b>	Members of the system contribute 8% of their annual compensation to the plan.
<b>Monetary Credit Account</b>	Members accrue monthly monetary credits equal to 18% of monthly salary. These monetary credits are accumulated in a Monetary Credit Account for each member and also credited with earnings monthly at a rate, not less than zero, equal to the annual net earnings rate achieved by the Fund. The Monetary Credit Account provides an optional benefit at eligible retirement ages (described below) if the member chooses this option. If a member withdraws from the system before he or she has vested (accumulated at least 5 years of service), the member is paid the amount of his or her 8% of salary contributions to the system, but not the full Monetary Credit Account. After 5 years of service however, the Monetary Credit Account becomes the property of the member upon withdrawal.



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**Service  
Retirement**

**Eligibility** - Judges must be at least age 65 with 20 years or more of service or age 70 with a minimum of 5 years of service. Two types of service retirement are available: Defined Benefit Plan or Monetary Credit Plan. Election of a plan must be made within 30 days after retirement.

**Defined Benefit Plan** - This option provides a "defined benefit" of 3.75% of the highest 12-month average salary per year of service, up to 75% of final average pay for judges reaching age 65 with at least 20 years of service. The normal form of payment is a joint and 50% contingent annuity with the spouse as contingent annuitant. This provides a surviving spouse with a monthly allowance equal to 50% of the judge's allowance. Optional settlements are available which reduce a judge's normal retirement benefit.

**Monetary Credit Plan** - This option provides a cash payment in a single lump sum or the member may elect to receive an annuity at retirement based on the value of his or her Monetary Credit Account.

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**Non-  
Industrial  
Disability  
Retirement  
(Non-Work  
Related)**

**Eligibility** - Judges who have five years of service and become permanently disabled because of a mental or physical disability may apply to the Commission On Judicial Performance for disability retirement.

**Benefit** - An allowance, based upon the judge's age, equal to the lesser of the following:

3.75% of final compensation multiplied by the number of years of service the judge would have been credited had he or she continued to work until the age he or she would have first been eligible to retire, or

65% of the judge's average monthly salary during the 12 months preceding the retirement date.

The normal form of payment is a joint and 50% contingent annuity with the spouse as the contingent annuitant.

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**Industrial  
Disability  
Retirement  
(Work  
Related)**

**Benefit** - Judges receive 65% of the judge's average monthly salary during the 12 months preceding the retirement date regardless of age or length of service.

The normal form of payment is a joint and 50% contingent annuity with the spouse as the contingent annuitant.

**Non-Industrial Pre-Retirement Death Benefit**

If Eligible for Service Retirement - Spouses receive either the monthly retirement allowance equal to one-half of the judge's "defined benefit" plan allowance or the judge's monetary credits.

If Not Eligible for Service Retirement - Spouses receive the judge's monetary credits or three times the annual salary at the time of death paid in 36 monthly installments, whichever is greater.

**Industrial Pre-Retirement Death Benefit**

If a judge dies in office, is age 65 or older with a minimum of 20 years of service and elects to have this provision apply (one time irrevocable election while judge is in office) then a payment to the surviving spouse is payable upon death. The spouse would receive a monthly allowance equal to the allowance paid to the judge had he or she retired immediately preceding death.

**Post Retirement Death Benefit**

*If the Judge elected the Defined Benefit Plan* - The surviving spouse of a retired judge who elected an Optional Settlement in the defined benefit plan receives one of four options:

- Option 1 - return of unused accumulated contributions;
- Option 2 - 4 - the Optional Settlement Benefit, the amount varies based on the option chosen by the member.

*If the Judge elected the Monetary Credit Plan* - If the full amount of monetary credits was received in a lump sum, there are no survivor benefits. If the judge elected the Monetary Credit Plan with benefits paid as an annuity, the spouse receives the amount based on the option chosen at retirement.

**Cost-Of-Living Adjustments (COLA)**

*If the Judge elected the Defined Benefit Plan* - The retirement allowance of retired judges who have elected the defined benefit plan will be adjusted every January after the judge has been retired six months. The adjustment is based on the United States city average of the "Consumer Price Index For All Urban Consumers," as published by the United States Bureau Of Statistics. No adjustment shall be made unless the cost-of-living increase equals or exceeds one percent (1%). Further, the allowance shall not be increased more than three percent (3%) in a single year. Increases shall be compounded.

## **Appendix C – GASB Statement No. 27**

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### **GASB 27**

Under GASB 27, an employer reports an annual pension cost (APC) equal to the annual required contribution (ARC) plus an adjustment for the cumulative difference between the APC and the employer's actual plan contributions for the year. The cumulative difference is called the net pension obligation (NPO). The ARC for the period July 1, 2011 to June 30, 2012 has been determined by an actuarial valuation of the plan as of June 30, 2010. The contribution rate for the indicated period is 23.441% of payroll. In order to calculate the dollar value of the ARC for inclusion in financial statements prepared as of June 30, 2012, this contribution rate, as modified by any amendments for the year, would be multiplied by the payroll of covered employees that was actually paid during the period July 1, 2011 to June 30, 2012. The employer and the employer's auditor are responsible for determining the NPO and the APC.

**Retirement  
Program  
Assumptions**

A summary of principal assumptions and methods used to determine the ARC is shown below.

Initial unfunded liabilities are amortized over a closed period that depends on the plan's date of entry into CalPERS. Subsequent plan amendments are amortized as a level percentage of pay over a closed 20-year period. Gains and losses that occur in the operation of the plan are amortized over a 30 year rolling period, which results in an amortization of about 6% of unamortized gains and losses each year. If the plan's accrued liability exceeds the actuarial value of plan assets, then the amortization payment on the total unfunded liability may not be lower than the payment calculated over a 30 year amortization period. More complete information on assumptions and methods is provided in Appendix A of this report. Appendix B contains a description of benefits included in the valuation.

	<b><u>Retirement Program</u></b>
Valuation Date	June 30, 2010
Actuarial Cost Method	Entry Age Normal Cost Method
Amortization Method	Level Percent of Payroll
Average Remaining Period	23 Years as of the Valuation Date
Asset Valuation Method	15 Year Smoothed Market
Actuarial Assumptions	
Investment Rate of Return	7.25% (net of administrative expenses)
Projected Salary Increases	3.25%
Inflation	3.00%
Payroll Growth	3.25%
Individual Salary Growth	3.25%.

**Schedule of  
Funding  
Progress**

The Schedule of Funding Progress below shows the recent history of the actuarial value of assets, actuarial accrued liability, their relationship, and the relationship of the unfunded actuarial accrued liability to payroll.

Valuation Date	Accrued Liability (a)	Actuarial Value of Assets (AVA) (b)	Unfunded Liability (UL) (a)-(b)	Funded Ratios		Annual Covered Payroll (c)	UL As a % of Payroll [(a)-(b)]/(c)
				(AVA) (b)/(a)	Market Value		
06/30/10	\$ 520,687,470	\$ 461,071,403	\$ 59,616,067	88.6%	81.1%	\$ 212,663,194	28.0%
06/30/09	450,547,115	378,691,893	71,855,222	84.1%	70.0%	198,793,201	36.1%
06/30/08	366,513,989	334,903,486	31,610,503	91.4%	88.8%	175,346,032	18.0%
06/30/07	294,982,560	267,604,460	27,378,100	90.7%	98.6%	156,251,856	17.5%

## Appendix D – Glossary of Actuarial Terms

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<b>Accrued Liability</b>	The total dollars needed as of the valuation date to fund all benefits earned in the past for <i>current</i> members.
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<b>Actuarial Assumptions</b>	Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include investment return, salary growth and inflation.
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<b>Actuarial Methods</b>	Procedures employed by actuaries to achieve certain goals of a pension plan. These may include things such as funding method, setting the length of time to fund the past service liability and determining the actuarial value of assets.
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<b>Actuarial Valuation</b>	The determination, as of a valuation date of the normal cost, actuarial accrued liability, actuarial value of assets and related actuarial present values for a pension plan. These valuations are performed annually or when an employer is contemplating a change to their plan provisions.
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<b>Actuarial Value of Assets</b>	<p>The actuarial value of assets used for funding purposes is obtained through an asset smoothing technique where investment gains and losses are partially recognized in the year they are incurred, with the remainder recognized in subsequent years.</p> <p>This method helps to dampen large fluctuations in the employer contribution rate.</p>
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<b>Amortization Bases</b>	<p>Separate payment schedules for different portions of the unfunded liability. The total unfunded liability (or side fund) can be segregated by "cause", creating "bases" and each such base will be separately amortized and paid for over a specific period of time. This can be likened to a home mortgage that has 24 years of remaining payments and a second on that mortgage that has 10 years left. Each base or each mortgage note has its own terms (payment period, principal, etc.)</p> <p>Generally in an actuarial valuation, the separate bases consist of changes in liability (principal) due to amendments, actuarial assumption changes, or methodology changes and gains and losses. Payment periods are determined by Board policy and vary based on the cause of the change.</p>
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<b>Amortization Period</b>	The number of years required to pay off an amortization base.
<b>Annual Required Contributions (ARC)</b>	The employer's periodic required annual contributions to a defined benefit pension plan, calculated in accordance with the plan assumptions. The ARC is determined by multiplying the employer contribution rate by the payroll reported to CalPERS for the applicable fiscal year. However, if this contribution is fully prepaid in a lump sum, then the dollar value of the ARC is equal to the Lump Sum Prepayment.
<b>Entry Age</b>	<p>The earliest age at which a plan member begins to accrue benefits under a defined benefit pension Plan or risk pool. In most cases, this is the same as the date of hire.</p> <p>(The assumed retirement age less the entry age is the amount of time required to fund a member's total benefit. Generally, the older a member is at hire, the greater the entry age normal cost. This is mainly because there is less time to earn investment income to fund the future benefits.)</p>
<b>Excess Assets</b>	When a plan or pool's actuarial value of assets is greater than its accrued liability, the difference is the plan or pool's excess assets. A plan with excess assets is said to be overfunded. The result is that the plan or pool can temporarily reduce future contributions.
<b>Entry Age Normal Cost Method</b>	An actuarial cost method designed to fund a member's total plan benefit over the course of his or her career. This method is designed to produce stable employer contributions in amounts that increase at the same rate as the employer's payroll (i.e. level % of payroll).
<b>Fresh Start</b>	When multiple amortization bases are collapsed into one base and amortized over a new funding period. At CalPERS, fresh starts are used to avoid inconsistencies that would otherwise occur.
<b>Funded Status</b>	A measure of how well funded a plan or risk pool is. Or equivalently, how "on track" a plan or risk pool is with respect to assets vs. accrued liabilities. We calculate a funded ratio by dividing the actuarial value of assets by the accrued liabilities. A ratio greater than 100% means the plan or risk pool has more assets than liabilities and a ratio less than 100% means liabilities are greater than assets.

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<b>Normal Cost</b>	The annual cost of service accrual for the upcoming fiscal year for active employees. The normal cost plus surcharges should be viewed as the long term contribution rate.
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<b>Pension Actuary</b>	A person who is responsible for the calculations necessary to properly fund a pension plan.
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<b>Prepayment Contribution</b>	A payment made by the employer to reduce or eliminate the year's required employer contribution.
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<b>Present Value of Benefits</b>	The total dollars needed as of the valuation date to fund all benefits earned in the past or expected to be earned in the future for current members.
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<b>Rolling Amortization Period</b>	An amortization period that remains the same each year or does not decline.
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<b>Superfunded</b>	A condition existing when the actuarial value of assets exceeds the present value of benefits. When this condition exists on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation may be waived.
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<b>Unfunded Liability</b>	When a plan or pool's actuarial value of assets is less than its accrued liability, the difference is the plan or pool's unfunded liability. The plan or pool will have to temporarily increase contributions.